

Running Head: DISTANCE LEARNING BASED HIGHER EDUCATION

Distance Learning Based Higher Education for Wheaton Fire Department Personnel

William R. Schultz

Wheaton Fire Department - Wheaton, Illinois

National Fire Academy – Emmitsburg, Maryland

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed: _____

Abstract

The problem was that approximately 50% of Wheaton Fire Department (WFD) personnel have not completed formal, higher education in the context of academic degrees thus limiting the Department's ability to enact effective succession measures due to a narrowed pool of diversely qualified candidates. The purpose of the research was to identify different aspects related to Distance Learning based Higher Education to discover potential benefits for WFD members. The Action Research Method was used to solve the stated problem. The researcher collected information via Literature Review and the Results identified various options related to Distance Learning based Higher Education. The basis of the Recommendations was to implement the created Guideline that outlines the parameters for completing the stated educational method.

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Introduction

The Wheaton Fire Department (WFD) is comprised of thirty-five firefighting personnel that have varied and extensive experience and training. The problem is that approximately 50% of the members have not completed formal, higher education in the context of academic degrees thus limiting the Department's ability to enact effective succession measures due to a narrowed pool of diversely qualified candidates.

The purpose of this research is to identify a wide range of aspects related to Distance Learning based Higher Education in order to provide WFD members with a viable option for pursuit of advanced education. The action research method will be employed in the following Applied Research Project (ARP) to address the problem and accomplish the stated purpose by identifying various features of Distance Learning based Higher Education programs through a review of topical information gathered through a questionnaire and industry related literature. The results of the review will then be used to create a formal Guideline for personnel to utilize as an aid in the pursuit Distance Learning based Higher Education. The Guideline will be included as an appendix within the ARP.

The following research questions will be addressed through the presentation of the materials:

What is Distance Learning based Higher Education?

What are the common characteristics and features of Distance Learning based Higher Education programs?

What are the advantages and disadvantages of Distance Learning based Higher Education?

How do the features of Distance Learning based Higher Education programs for the fire and emergency medical services industry compare and contrast to one another?

What should be the guidelines for WFD personnel to follow if interested in completing Distance Learning based Higher Education?

What are the potential impacts of WFD personnel pursuing Distance Learning based Higher Education on the organization and community?

Background and Significance

The City of Wheaton is a western suburb of Chicago, Illinois with an area of 11.6 square miles and a resident population of approximately 56,000 people along with a daytime population that reaches 80,000 people. The City of Wheaton is a diverse community that is comprised of a balanced mixture of residential, educational, assembly, commercial, and light industrial occupancies. The City of Wheaton also serves as the county seat for DuPage County and is the site of the County Complex that includes a maximum security prison, judicial buildings, healthcare facilities, and a fairgrounds area. The community is also home to Wheaton College which is a residential, four year, liberal arts academic institution with a population of approximately 2400 students.

The WFD is an all hazards, emergency services organization that provides a wide array of services which include fire suppression, Advanced Life Support (ALS) emergency medical services, technical rescue, hazardous materials, disaster- emergency

management along with fire prevention and public education activities delivered by both career and contractual employees.

Services are delivered by a compliment of thirty three fire suppression, two administrative, and eighteen emergency medical personnel operating out of three stations that house two front line engines, one tower ladder, one shift commander vehicle, and three ambulances. The daily shift assignment (3 platoon - 24/48 schedule) includes eleven fire suppression slots (1 Lieutenant, 2 Firefighters per station, 1 Captain/Shift Commander, and 1 floating Firefighter position) and six Paramedics. Additionally, the Department is an active participant in automatic aid/mutual aid activities with neighboring fire departments throughout the region and state. The Department responds to approximately 5000 requests for service annually with a relative breakdown of 80 % emergency medical and 20 % fire/service related calls.

Within the make-up of the WFD, the career status of fire suppression personnel is just as diverse as the community they serve and the services they provide. The Department currently has approximately 25% of its fire suppression personnel (9 out of 35 members) that are eligible for retirement due to their meeting of the service time minimums for the pension fund. The minimum requirements for retirement eligibility in the Department's pension fund are 20 years of service and the age of 50 in order to collect a pension payment of 50% of the ending salary. With regards to the age of the potential retirees, eight out of the nine members are over the age of 50.

Furthermore, of the 25% retirement eligible members, five members are Officers of the Department which equates to potential turnover of nearly half of the WFD Officer Staff at any time. The turnover has direct impact in the areas of personnel advancement

and hiring along with the loss of experience. With regard to personnel advancement, over the past several years the Department has made notable transitions in increasing the minimum requirements for promotion due to labor agreement provisions and the desire to continually improve the professionalism of Department personnel. The Department's promotional process has progressed from minimal recognition of educational achievements to awarding significant points for the acquisition of advanced degrees. Additionally, minimum qualifications for Officer's positions have been increased to require Associate Degrees and prefer Bachelors and Master level degrees at different levels.

Coupled with the personnel advancement issues are additional issues related to the hiring of new personnel to fill in the gaps from promotion along with issues related to the experience levels of personnel. As a result of the flurry of pending retirements, the WFD will lose a collective body of knowledge, education, and experience that has been acquired over decades of time. While the loss is compensated with very dedicated and talented people, the levels of knowledge, education, and experience are difficult to be matched. The point is driven home with the fact that approximately 50% of WFD personnel have less than 10 years of experience. The hiring of new personnel will only increase this percentage due to the fact that many of the newly hired employees are relatively new to the fire service and have minimum knowledge, education, and experience.

In the flux of all these variables, a disparity exists in the number of members that have completed formal academic degrees and those members that have not. As was outlined in the problem statement, approximately half of WFD members have not

completed formal education in terms of academic degrees. Many of these members have pursued extensive technical based, certification training but have not matriculated the training augmented with required courses in a formal academic setting. As a result, the Department is faced with a fairly significant succession planning issue of assisting personnel with completing formal education in order to meet promotional parameters and aid in offsetting knowledge gaps thus better preparing the WFD for the future.

Historically, WFD members have cited the lack of access to formal education programs and the required time commitments in the traditional academic setting as contributing causes to non-pursuit of formal education. In this day and age of formal education advances in the area of Distance Learning, the claimed causes become a significantly less hindrance to completing higher education.

The topic of this ARP has a direct correlation to the section entitled *Unit 7: Succession/Replacement Planning* covered during the October 2007 Executive Leadership course. Specifically, the course covered information related to employing succession planning practices along with the development of personnel both as a benefit to the individual and in preparation for the voids in knowledge created by retirements or general organizational growth. The concept and benefit of succession planning is neatly summarized in the course text with “succession planning is an organized and systematic way to ensure that employees in a particular organization are capable, competent, and willing to replace and/or succeed to strategic roles within the organization” (Federal Emergency Management Agency [FEMA], 2005, p. 7-3).

Additionally, the topic of this ARP correlates to the fifth organizational objective of the United States Fire Administration’s (USFA) five-year operational objectives which

state “to respond appropriately in a timely manner to emerging issues” (FEMA, 2003, p. II-2). Within the WFD and the fire service in general, succession planning is a critical, strategic issue that requires focused attention now due to the number of retirements occurring and the pace at which communities are evolving. These elements are the cause of missing links in generational knowledge and experience that can negatively impact the fire service. The pursuit of formal education is one of the key aspects of replacing these links.

Literature Review

The predominate portion of the Literature Review related to this ARP was completed at the National Fire Academy (NFA) Learning Resource Center (LRC) in Emmitsburg, Maryland. Also, several internet based materials were obtained and reviewed in order to support the information.

The Literature Review for this project revealed extensive information linked to Distance Learning based Higher Education. The purpose of the review was to identify topical details that will highlight the answers to some of the Research questions outlined in this ARP.

The first research question identified for this project is focused on defining Distance Learning. The literary resources reviewed shared common themes in terms of this definition. According to Peterson (2005), “distance learning is the delivery of educational programs to students who are off-site” and that “in distance learning courses, the instructor is not in the same place as the student” (p. 3). Thorson (2000) expands the definition to incorporate the notion that “to be effective, learning at a distance requires

the integrated efforts of several participant groups, including students, faculty, facilitators, and support staff” (p. 5).

Coleman (2006) adds that the term distance learning “encompasses all learning that takes place at locations remote from the point of instruction” (p. 34). Brakhage (2000) supports the common descriptions with “distance learning is any learning that takes place with the instructor and student geographically remote from one another” (p. 13). A good summation of distance learning is purported by Peterson (2005) in that “you can be a distance learner whether you live 300 miles from the university or across the street” (p. 3).

With this definition in mind, it is appropriate to identify several common characteristics and features of Distance Learning based Higher Education programs. The programs exhibit a variety of characteristics that include the use of technology and non-traditional methodology for delivering educational material. In the contexts of technology and methodology, distance learning is commonly categorized into synchronous and asynchronous methods. Buchanan (2006) describes the synchronous method as “all participants must be present at the same time” (p. 94).

The requirement of students being present at the same time is not necessarily in the physical sense of inside a single classroom but rather in the sense that students are interacting possibly at a set time within a cyber environment or via multiple physical sites with interaction occurring telephonically or in a multimedia format such as video conferencing. In most cases, synchronous delivery of a Distance Learning program involves the active delivery of information by an instructor to the students such as a live

lecture format with the possibility that student interaction and feedback can physically occur.

Asynchronous is the other category of method and is described as “classes occur at flexible times” (Peterson, 2005, p. 3). The asynchronous category can incorporate the use of printed materials; audio based materials; and/or pre-recorded video material. Even more prevalent in the modern educational arena is the use of computer technology in an asynchronous method. Snodgrass (2007) stated that “asynchronous learning involves accessing course materials from a computer attached to the Internet, allowing students to access the virtual classroom at anytime or any place” (p. 88). Several authors touched on the point that many Distance Learning based Higher Education programs utilize a combination of synchronous and asynchronous methods in the delivery of program courses.

A significant characteristic of Distance Learning programs is the practice of independent learning. Independent learning is an underlying yet predominant aspect of most programs. According to Coleman (2006):

Independent learning focuses on the creation of opportunities and experiences for a firefighter to become increasingly capable, self-reliant, and self motivated at their own pace and that it is based upon the individual accessing and utilizing training information that is not dependent upon others for execution. (p. 32-33)

It is evident from the various sources that the driving force behind success in these programs is the student’s ability to work on their own and in many cases without physical interaction between themselves, fellow students, and even the teacher.

From characteristics and features, the attention now turns to the advantages and disadvantages of Distance Learning based Higher Education. Many of the advantages are rooted in the notions of convenience, flexibility, and ease of access to programs. In his article entitled Loggin' In: , Williams (2004) quotes Drexel University's (Philadelphia, PA) Assistant Professor Rick Fuller as saying that "it (distance learning) provides a level of flexibility that traditional programs don't" and that "online education works when and where you want it" (p.69).

With regards to convenience and flexibility, a Distance Learner can achieve benefit in a variety of ways that get tied to the independent nature of the learning. According to Sprenger (2002), Distance Learning "offers greater convenience to responders and training officers because self paced courses can be taken at home, during lunch hours at work, at computers in the station, or anywhere a computer and internet connection are available" (pg. 69). Another author, Shannon (2004), quoted a fire service student as saying "traditional class attendance is not an option because of work schedule" and that "commute time and relocation are non issues with on-line classes" (pg.7).

The pursuit of Distance Learning is especially appealing to niche audiences such as older adults. Ryan (2000) reported that "students older than average are a special group of learners for whom the autonomy, self-pacing, and convenience of non-learning based programs are especially beneficial" (pg.24). It is this theme of convenience that is repeated throughout literary sources.

A final notion tied to advantages is based upon the concept of quality. It was clear from a number of sources that Distance Learning has traditionally had an air of skepticism related to whether or not a student can achieve a quality education without

being in traditional classroom setting. In an article that summarized a study related to this topic, Sugrue (1999) identified that “studies have led researchers to conclude that distance education is at least effective as traditional education” (pg. 14). In further support of this advantage, Allen (2006) reported that “nearly 3.2 million students were taking at least one online course during the fall 2005 term, a substantial increase over the 2.3 million reported the previous year” (pg. 1).

It is evident in the literature related to this topic that Distance Learning can be deceiving to people who decide to engage in this format because a common reaction is that the new knowledge will be acquired with little or no effort. It is in this concept where some of the disadvantages of Distance Learning lie. According to Coleman (2003), “among the greatest of this concept’s weaknesses are motivation and discipline” in that “e-learning (a.k.a distance learning) can be deferred easily when other events are pressing” (pg. 69).

In other words, a person engaged in Distance Learning needs to be self-motivated, organized, and focused in order to be successful. Carter (2004) provides additional support of this with the following:

Lest you think that these approaches to earning your degree are easy, let me offer you a warning. You will still be acquiring text books, doing research on line, reading regular assignments, answering class work related questions, and crafting regular research papers. Perhaps the only thing you will not be doing is spending untold hours commuting to, and sitting in, the classroom. (p. 98)

The literary sources make it very clear that a student can quickly fail without the implementation of strong learning skills.

Coupled with the need to be an independent learner is the fact that most of today's Distance Learning is done without physical, face to face, interaction between student to student and student to instructor. Therefore, a learner who relies upon this interaction to aid in their success will most likely not satisfy the need. In her article related to the topic of Distance Learning, Shannon (2004) points out that "on-line programs don't work for everyone – those who need structure imposed from outside and those who need close personal contact to thrive, for example are better off in the classroom" (p.7).

One final disadvantage of Distance Learning is related to the same concept of quality which was also mentioned under "advantages". A number of the literary resources identified the importance of engaging in Distance Learning programs that have established legitimacy through recognized accreditation methods. Evidently, over the time that Distance Learning has progressed there have been institutions that have issued completion documentation that was not validated through regimented learning processes but rather issued upon minimal to no work by the student. In the article *Degrees of Deception*, O'Neal (2001) uses the term "diploma mills" to describe this scenario and states that "these institutions are concerned not with a congruous education, but with generating a profit" (p. 60).

The negative elements of this disadvantage are amplified with the issue of applying the documentation obtained, whether knowingly or not, in this format to career advancement. An example of this occurred in the City of Sacramento, California Fire Department when it was identified that raises were obtained after submitting diplomas from non-accredited academic institutions. According to McIntosh (2007), "sixteen

Sacramento city firefighters together pocketed \$50,000 in extra pay after using bachelor's degrees purchased from online diploma mills to obtain raises" (p. 1).

The traps to avoid for a potential student are to not understand the meaning of accreditation and to not verify that the claimed accreditation was obtained from an agency recognized by the United States Department of Education or the Council on Higher Education Accreditation. O'Neal (2001) identified that "in many cases employees will be unaware that their degrees are worthless" and that "it's imperative that aspiring officers be guided and directed toward accredited colleges and universities" (p. 62). The importance of this is driven home by Antonellis (2007) with, "an online program must be fully accredited because if an online program is lacking these basic tenets, a quality education will not be possible and you will have wasted your time and money" (p. 142).

Literature Review Summary

The literature review revealed extensive information related to the first several research questions. The literary sources clearly identified definitions related to the stated method of learning which then were matched with common characteristics in order to establish a basis of identity. Additionally through the review, the advantages and disadvantages became evident and greatly aided the author by dispelling presumptions along with the acknowledgement of potential pitfalls for uninformed pursuers of Distance Learning which will be used as background in the development of the Guideline.

Procedures

The topic was selected after a broad review of the issues currently facing the WFD. With the topic selected, the appropriate approval was received and then the

following Procedures were utilized for the development of this ARP. The majority of the research associated with the selected topic was conducted at the National Fire Academy's Learning Resource Center. During the research activities, pertinent resources were gathered for use during the Literature Review.

Upon assemblance of these resources, a comprehensive Literature Review was then completed. Throughout the Literature Review process, relevant sections of the literary sources were identified for incorporation into the Literature Review section of the ARP. The collected literary sources were then prioritized based upon their applicability to the topic and a summary sheet of notes was created for reference during the preparation of the project.

A considerable amount of the subject matter for this ARP was constructed using industry related information identified through the Literature Review. Additionally, a questionnaire was also created in order to collect personalized information related to individual Distance Learning experiences. The questionnaire was distributed to the students of the October 2007 Executive Leadership course at the National Fire Academy. For clarification, the respondent selection for the questionnaire was chosen based upon the fact that the students were from around the world, had varied backgrounds in the profession, and were assumed to have diverse backgrounds in educational experiences. A total of twenty questionnaires were distributed to respondents with nineteen completed copies being returned.

The results collected from the questionnaire were used to support and augment the Literature Review findings. A blank questionnaire copy and a *Summary Version* of the questionnaire which outlines the collected feedback are included with this ARP for

reference. The two questionnaire instruments are entitled Appendix A and Appendix B respectively.

Upon completion of the Literature Review activities and the collection of questionnaire information, a general outline was created and the content of the ARP was then drafted in accordance with the Executive Fire Officer Program Applied Research Guidelines. As part of the drafting process, the Wheaton Fire Department's Distance Learning based Higher Education Guideline (Appendix C) was assembled to meet the requirements of the Action Research Method.

Once all ARP components were completed, the draft version of the ARP was then reviewed by several parties selected by this author and feedback regarding formatting and content was collected. The feedback was then used to create the final version of the ARP. The final version was then submitted to the assigned evaluator for review and grading.

Limitations

The limitations related to this ARP need to be delineated for the reader in order establish an accurate perspective of the topic. The inception of this ARP started with a broad search of information related to the topic. As research activities progressed, it was identified that several limitations would be instituted in order to hone in on the most pertinent information.

The first limitation was related to the group used for gathering questionnaire data. As was previously mentioned, it was decided that only the students in the October 2007 Executive Leadership class would be used for obtaining a basic representation of the data merely because the group was so diverse and provided an excellent opportunity for varied

experiences. In absence of this group, it most likely would have been necessary to broaden the respondent audience to gain that diversity.

A second and connected limitation to the first stated limitation exists with regards to the scope of degree types pursued through Distance Learning based Higher Education. The content of this ARP was limited to fire and emergency services based/related programs delivered in this fashion and did not incorporate other academic programs due to their lack of applicability to the profession. The Action Research product developed as a result of this ARP is geared toward fire and emergency service members. With this in mind, the connection to the first limitation also occurs at this level because another reason the respondent group was selected relates directly to their professional backgrounds.

A final limitation related to the scope of the analysis for Distance Learning based Higher Education programs exists. The research identified extensive numbers of available programs for students to choose from. However, for the sake of brevity and in order to ultimately benefit the members of the Wheaton Fire Department the analysis to identify the comparison/contrast of programs was limited to those programs that were first accredited by a recognized accreditation agency as per the United States Department of Education and second those programs that the questionnaire respondents identified as the institutions for their related experiences. In the end, six institutions were compared and contrasted as part of this ARP.

Definition of Terms

Distance Learning: “Broadly defined, distance learning is the delivery of educational programs to students who are off-site.” (Petersons, 2004, p. 3)

Accreditation: “it is a validation – a statement by a group of persons who are, theoretically, impartial experts in higher education, that a given school has been thoroughly investigated and found worthy of approval.” (Bear, 2006, p. 37)

Synchronous: “all participants must be present (in the classroom or online environment) at the same time.” (Buchanan, 2006, p. 94)

Asynchronous: “students can access and participate in the course at any time of the day.” (Buchanan, 2006, p. 94)

Results

The results of this ARP were obtained from the information gathered during the Literature Review and the Questionnaire Instrument data collection process.

The first question of this ARP asks: “What is the definition of Distance Learning based Higher Education?” The research activities identified that the definition is based upon both physical characteristics and teaching methodology. The physical characteristics reference pertains to the limitation of or lack of physical interaction between students and students/instructors. The research highlights that in order to put the physical characteristics into perspective, a person could view distance learning as learning that takes place in a non-traditional setting with the traditional setting involving an instructor physically in the classroom with students physically being present in the same room. Therefore, distance learning can involve learning remotely from the location where it is being delivered.

Additionally, teaching methodology is incorporated into the definition. Distance learning teaching methodology has evolved over time from independent study activities involving previewing media resources or reading research materials with correlated

writing assignments to the modern day on-line, computer based education. With modern computer technology, a student can access learning from environments of their choosing and based upon their schedule or access an on-line classroom (when offered) to participate in live computer based interaction. The melding of the two features provides the foundation of meaning for the term Distance Learning.

The second research question asks: “What are the common characteristics and features of Distance Learning based Higher Education programs?” The most common theme related to the characteristics of this type of learning appears to be convenience due to the independent learning format. As was mentioned in the definition information, a student primarily controls the time table for working on assignments and in most cases they can access information/complete tasks at a location they specify. Hence the notion of convenience for a student who is not able to complete education in a traditional setting.

The type of delivery methodology becomes another feature of distance learning. The research identified two delivery methods which are synchronous and asynchronous. The synchronous delivery method involves simultaneous interaction between students and students with faculty. The method requires hardy technology such as video conferencing or computer based chat capability to allow for concurrent interface between involved parties.

Conversely, the asynchronous method does not require concurrent capabilities but rather the ability for the students to access class materials/components at their freedom. The material is either electronically accessed by the student via the computer at some centralized point or materials are obtained by the student, possibly via mail or picked up

at a educational site, and then the student completes the work in an independent fashion. The final materials are then submitted to the instructor for review and grading.

In the third research question, the inquiry of “What are the advantages and disadvantages of Distance Learning based Higher Education?” is presented. The advantages involve the flexibility for learning and ease of access to programs. The research identified that the format of distance learning is especially appealing to working adults who have constraints related to time, family, and professional commitments. Distance learning provides this type of student the opportunity to access and complete education that would otherwise be out of reach.

The ease of access is also connected to the availability of numerous and varied programs especially in a computer based on-line format. In essence, the current state of distance learning is such that a student in one location can attend an institution that is located multiple states away and/or at learning institutions that would otherwise be un-accessible due to the student’s distance from the institution. Furthermore, a student can also take advantage of accessing different programs that may not be provided in their geographical areas.

In contrast to the advantages, the issue of disadvantages also was assessed. The research identified that disadvantages can occur as several levels. The first level is in terms of the quality of the program, quality being equated to accreditation by a recognized agency. Examples of problems were identified involving students who pursued and completed non-accredited degree programs and then faced validation challenges with their employers. The lesson learned is to ensure that the program being pursued is accredited by an agency recognized by the United States Department of

Education. Additionally, the research shed light on the process of accreditation and the identity of the various agencies that conduct accreditation activities.

Another disadvantage occurs at the level of the student. It is evident based upon the information that a student participating in this type of learning must be self-driven and disciplined in order to be successful. The research showed that many students, who fail using this method, fail because they struggle with learning on their own and not engaging the physical interaction with an instructor.

Joined with this thought is a common misconception that distance learning is “easy” because of the absence of the traditional learning features. Numerous research materials emphasized that students should not assume that distance learning is an effortless process and that in many cases the student’s workload is much greater because of the independent nature of the method.

As part of the research process, this author also employed a questionnaire instrument to obtain additional information related to the topic. The results of the questionnaire are included in this ARP as Appendix B. The questionnaire data identified such things as opinions about the appeal of distance learning methods which includes the ability to complete programs at the student’s own pace and at their convenience.

Also, several respondents identified that they either didn’t prefer the learning method or they were not successful because of the lack of interaction with an instructor and/or other students along with the inability to stay motivated. Respondents also commented on the variety of programs that were available and the greater majority rated their experience as positive. One additional item that surfaced with the questionnaire

information was that very few organizations, if any, have Guidelines for their members to use when pursuing this educational method.

The fourth research question asks: “How do the features of Distance Learning based Higher Education programs for the fire and emergency medical services industry compare and contrast to one another?”. The answer to this question is outlined in Table 1. The details of this table identify the diversity of available programs at various institutions along with the differences in tuition costs and the similarities between each institution’s accreditation agencies. Additionally, many of the identified institutions deliver their programs predominately on-line and several offer unique features such as correlation to the National Fire Academy’s Degrees at a Distance program.

Table 1

Analysis of Distance Learning Programs

Institution	Programs	Tuition	Accreditation	General
Eastern Kentucky University www.firescience.eku.edu 1-866-277-9878	1. Master of Science in Safety, Security, & Emergency Management – 36 credit hours	1. \$500.00 per credit hour 2. \$350.00 per credit hour	Commission on Colleges of the Southern Association of Colleges and Schools	Both programs are delivered completely on-line
	2. Bachelor of Science in Fire			

Institution	Programs and Safety	Tuition	Accreditation	General
	Engineering Technology – 75 credit hrs.			
Western Illinois University www.wiu.edu/SES/fireservice 309-298-1929	Bachelor of Arts Degree – Fire Administration – 120 semester hrs.	\$199.50 per semester hour	North Central Association of Colleges and Schools	Regional National Fire Academy Degrees at a Distance Program member. Independent study or online courses.
Grand Canyon University www.gcu.edu/gcu/ 877-860-3951	1. Master of Science in Executive Fire Service Leadership –	1. \$400 per credit hour 2. \$375 per credit hour	North Central Association of Colleges and Schools	Both programs are delivered completely

Institution	Programs	Tuition	Accreditation	General
	36 credit hrs.			on-line.
	2. Bachelor of Science in Public Safety Administration – 45 credit hrs.			
University of Cincinnati www.uc.edu/cas/firescience 513-556-1100	1. Bachelor of Science in Fire and Safety Engineering Technology – 94 credit hrs. 2. Associate Degree in Fire Science Technology – 92 credit hrs.; Can be applied to Bachelors Degree	1. \$665 per credit hour 2. \$665 per credit hour	North Central Association of Colleges and Schools	Regional National Fire Academy Degrees at a Distance Program member. Independent study or online courses. EMS degree also

Institution	Programs	Tuition	Accreditation	General available
Upper Iowa University www.uiuonline.info 888-877-3742	<p>1. Bachelor of Science Degree in Public Administration with emphasis in Fire Science – 36 core credit hrs.</p> <p>2. Master of Public Administration with emphasis in either Homeland Security or Public Personnel Management –</p>	<p>1. \$299 per credit hour for online</p> <p>2. \$369 per credit hour for online</p>	North Central Association of Colleges and Schools	Both programs are delivered completely on-line.

Institution	Programs	Tuition	Accreditation	General
	42 credit hrs.			
Columbia Southern University	1. Associate of Applied Science in Fire Science – 61 credit hrs.	Tuition for undergraduate is \$185 per credit hour	Distance Education and Training Council and Council for Higher Education Accreditation	Both programs are delivered completely on-line.
www.columbiasouthern.edu				
800-977-8449 code 840	2. Bachelor of Science Degree in Fire Science – 121 total credit hrs.			

Note. The numbers listed in the Programs and Tuition columns are used to reference correspondence between items. Also, all information was obtained via the internet and the listed tuition amounts are based upon the rates reported at the writing of this ARP.

As part of the action research method, the question of “What should be the guidelines for WFD personnel to follow if interested in completing Distance Learning based Higher Education?” is raised to identify the final product. With the findings of the research, a Guideline which is provided as Appendix C within this ARP was developed to provide a framework and/or road map to pursue advanced learning via the stated format. The guidelines offer a user direction on general considerations associated to

methodology, tuition related information, resources for establishing a starting point in selecting programs, and applicable organizational procedures that may apply to the WFD personnel.

Discussion

It is interesting to note that the questionnaire results reported in the Results section were compiled prior to the completion of the literature review. The importance of this point is that after reviewing the questionnaire data and then subsequently reviewing the literature review materials, it became evident that the experiences of the respondents correlated directly to the reported information of authors.

Examples of these correlations were identified in several areas. The first area that this occurred was in the advantages of distance based learning. Questionnaire respondents identified advantages underpinned with the premise of convenience as: the method being friendly for the work schedule; did not have to sit in a classroom; being able to use personal time more efficiently; the learning fitting into the Fire Department schedule; programs that were accelerated; and being able to earn a degree while working full time. As a connection to these advantages, Williams (2004) identifies that “convenience drives much of the growth in online student enrollment” and he quotes a school official named Fuller as saying “it provides a level of flexibility that traditional programs don’t” (p.69).

With convenience as the theme, Sprenger (2002) states that “self paced courses can be taken at home, during lunch hours at work, at computers in the station, or anywhere a computer and Internet connection are available” (p. 69). A concluding point as to the attraction students have to this type of learning is delineated in Allen (2006)

where it is cited that “for the past several years, online enrollments have been growing substantially faster than the overall higher education student body” and that “the more than 800,000 additional online students (enrolled in 2006) is more than twice the number added in any previous year” (p.1).

Respondents to the questionnaire also conveyed their notions about disadvantages which included things like: dropping classes due to the inability to keep up with work after procrastination; lack of interaction with other students and instructors; greater amounts of course work than found in traditional programs; difficulty in gaining same experience as traditional classroom such as that achieved through dialogue between participants; and obtaining assistance can be challenging due to the absence of physical interaction with the instructor.

Snodgrass (2007) supported many of the thoughts conveyed in the Questionnaire with, “time management is one of the major pitfalls for uninitiated students” and that “self directed motivation is required of the online student” (p. 92). Snodgrass (2007) also identifies that “unlike traditional classrooms where verbal skills prevail, e-learning requires good writing” and finally that “if you do not participate then the work becomes overwhelming” (p.92). The end message of the disadvantage comparison is that successful distance learners need to be highly motivated, committed, and diligent in managing their course work.

The information gathered from the research has made important impact on this author. As a life-long student, this author has completed extensive learning in the traditional classroom and also through several distance learning courses via a tele-course format. It was extremely enlightening to learn about modern distance learning methods

and how they can not only be of benefit to students but also some of the challenges that they can face. It is the enlightenment gained that will be translated into action for the members of the WFD.

The author of this ARP has been charged with the responsibility of assisting WFD members with professional development. One of the primary focuses of this task is to identify and provide opportunities for completing higher education in order to positively impact the Department's succession planning activities and to aid in enhancing the knowledge, skills, and abilities of members. The information obtained through this research validated the author's assumptions about distance learning which included the thought that one of most appealing aspects is convenience and dispelled concerns about quality issues related to the learning method such as just buying a diploma. In this vain, the critical aspect of assuring that the learning institution is accredited by an agency recognized by the United States Department of Education was reinforced for the author in order to minimize pitfalls for potential students.

In addition to the recognition of characteristics, advantages, and disadvantages, it was also quite evident that many opportunities exist for varied types of distance learning which means that a student has many choices for accomplishing their educational goals. With a commitment from a student, they could feasibly obtain progressive levels of higher education that range from an Associates degree up to and including a Doctoral degree.

On top of this, they could earn these degrees from institutions such as Western Illinois University or University of Cincinnati that would otherwise be inaccessible through traditional methods due to their remoteness from the student. As if these aspects

weren't enough, the most positive opportunity is that the student can achieve their goals at their pace and convenience which counters the common arguments that they don't have the time to sit in a traditional classroom.

As identified by the final research question of "What are the potential impacts of WFD personnel pursuing Distance Learning based Higher Education on the organization and community?" it is expected that the WFD will be impacted by this research at a number of levels. The primary level being the potential use of the *Distance Learning based Higher Education Guideline* by a Department member who decides to pursue higher education in this format. The domino effect of the Guideline use most likely will be realized at other levels such as in the area of the Department's succession planning efforts and in the area of even greater individual abilities of members. The effects on these levels can positively impact the efficiency of the organization and the services delivered to the community well into the future.

Recommendations

The research has identified that WFD members could benefit from the use of Distance Learning based Higher Education. The following Recommendations are being proposed as potential steps that can be implemented in order to gain the identified benefit:

1. The first recommendation is to formally review and adopt, through the WFD administrative procedures, the attached *Distance Learning based Higher Education Guideline* (Appendix C).

2. The second recommendation would involve the conducting of Department training sessions to review the findings of this research and to provide general information regarding the Guideline.
3. The third recommendation is to conduct individual coaching sessions with personnel to discuss the opportunities in detail and directly identify individuals that are interested in pursuing education in this method. With the identified individuals, personal education plans could then be developed for use as roadmaps in achieving their educational goals. Additionally, the information identified in the plan would be used to measure the effectiveness of the Guideline and the overall success of its implementation.
4. The fourth recommendation is to identify and possibly implement expanded features related to Distance Learning such as scholarship opportunities, partnerships with learning institutions, and the use of the methodology for other learning such as continuing education/certification training.
5. The fifth recommendation involves the creation and implementation of a similar Guideline for local based (traditional educational setting) higher education programs.

It is believed that in general these recommendations will aid the WFD with the development of its personnel and better prepare the organization for the future. Future readers could benefit by following the steps identified within the Guideline but it is recommended that they research preferred institutions for their organization and confirm current tuition rates for reference.

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Appendix A
Distance Learning based Higher Education Questionnaire

The following questionnaire is a data collection tool being utilized by Deputy Chief Bill Schultz (Wheaton Fire Department, Wheaton Illinois) to obtain data for the Applied Research component of the R125 Executive Leadership course within the Executive Fire Officer (EFO) program at the National Fire Academy.

1. Have you participated in and/or completed a Distance Learning (i.e. computer on-line, correspondence, independent study) based program for an advanced education degree (i.e. Associates, Bachelors, Masters, and/or Doctoral)?

☐ Yes ☐ No

**If you answered "Yes", please answer the questions listed below. If you answered "No", you do not need to proceed and thank you for your assistance!*

2. Please list the name(s) of the institutions you have utilized for pursuit of this education including the title(s) of the programs and the degree(s) associated with the program.

3. In your opinion, what were the ADVANTAGES of utilizing Distance Learning and/or the particular program that you participated in?

4. In your opinion, what were the DISADVANTAGES of utilizing Distance Learning and/or the particular program that you participated in?

5. On a scale of 1 to 5, please rate your overall experience with the use of Distance Learning for the pursuit of Higher Education.

☐ ☐ ☐ ☐ ☐
 1 2 3 4 5
 Positive Experience Average Experience Negative Experience

6. Does your Department/Organization have a formal Guideline/Policy/Procedure related to the pursuit and completion of Distance Learning based Higher Education for your members?

☐ Yes ☐ No

If you selected “Yes”, is a copy of your Policies/Procedures/Guidelines available for sharing with this author or others who may access the information contained in this ARP? If so, please list pertinent contact information to facilitate this sharing:

Contact Name: _____

Contact Email: _____

Other Contact Info: _____

7. Please feel free to provide any general comments or suggestions related to your experience with Distance Learning based Higher Education.

Thank you for your assistance in completing this survey and if interested, please feel free to contact the author at wschultz@wheaton.il.us to obtain the results of this survey.

Appendix B
Summary Version
Distance Learning based Higher Education Questionnaire

The following questionnaire is a data collection tool being utilized by Deputy Chief Bill Schultz (Wheaton Fire Department, Wheaton Illinois) to obtain data for the Applied Research component of the R125 Executive Leadership course within the Executive Fire Officer (EFO) program at the National Fire Academy.

1. Have you participated in and/or completed a Distance Learning (i.e. computer on-line, correspondence, independent study) based program for an advanced education degree (i.e. Associates, Bachelors, Masters, and/or Doctoral)?

☐ **Yes-** 15 respondents ☐ **No –** 4 respondents

****If you answered “Yes”, please answer the questions listed below. If you answered “No”, you do not need to proceed and thank you for your assistance!***

2. Please list the name(s) of the institutions you have utilized for pursuit of this education including the title(s) of the programs and the degree(s) associated with the program.

University of Cincinnati – B.S. Fire Safety Engineering Technology; University of Maryland; Western Illinois University – Bachelor of Arts; Mt. Olive College (several on-line course while pursuing MOD program Bachelors in Business Administration; Barry University and Indian River Community College; Grand Canyon University – Master of Science in Fire Service Executive Leadership (MSFSEL); Empire College of New York State – Fire Service Administration and Emergency Management; University of Maryland – Bachelor of Science in Fire Science; Pikes Peak Community College – A.A.S in Fire Science and University of Cincinnati and Western Illinois University and Amberton University; University of Maryland – University College; Grand Canyon University – MSEFSL and Walden University – Master Public Administration; Broward Community College; Western Oregon University – Bachelor of Science in Fire Service Administration; Western Illinois University – Bachelor Degree in Fire Administration; University of Maryland – Bachelor of Science in Fire Service Administration

3. In your opinion, what were the ADVANTAGES of utilizing Distance Learning and/or the particular program that you participated in?

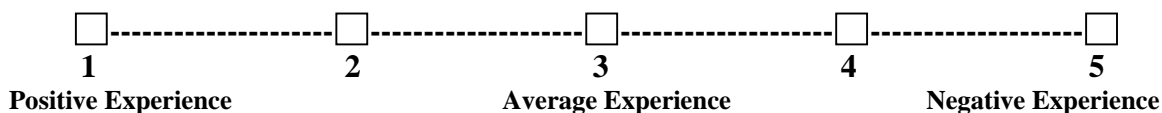
Excellent learning process, friendly for work schedule, can overcome no institution in your area; Not having to travel, work at home; Being able to take classes by correspondence that pertained to the field of work I'm in, I did not have to sit in the traditional classroom when I worked shift; The classes were o.k. but I preferred the on campus learning environment; Time – can work on it when you have time at your own pace; Use my time more efficiently, no dedicated class time; No classroom or travel time to class, classes never cancelled due to weather; Time management – fit my FD work schedule, Convenience, self paced; School work that you could fit into a busy schedule;

Flexible schedule, accelerated programs, relatively low cost; I didn't have to fight traffic and burn gas, I also could utilize my time management skills to complete the course; convenience and availability, did not have to travel and still received credible degree; Was able to obtain degree while working full-time; I could do it when I wanted, fit into a busy lifestyle;

4. In your opinion, what were the DISADVANTAGES of utilizing Distance Learning and/or the particular program that you participated in?

None, I loved it; No interaction with other students, which I think is a part of the learning; You have to be disciplined and study without anyone to tell you, be very focused; I lacked the interaction with other students; Much more work, not effective interaction; worked great for me; no personal interaction between student and instructors; must be very self disciplined, more writing assignments compared to traditional college classes; limited instructor interaction, excessive work load; face to face contact with teachers and classmates (lack thereof); It is hard to replace the free-flowing dialogue of ideas in a classroom; If you need assistance or had a question there would be no discussion; No face to face interaction with instructor, communication was problematic; Assistance with course work was difficult; Level of education is low, becomes an independent study, little value added;

5. On a scale of 1 to 5, please rate your overall experience with the use of Distance Learning for the pursuit of Higher Education.



Rating of "1" – 7 respondents

Rating of "2" – 3 respondents

Rating of "3" – 3 respondents

Rating of "4" – 1 respondent

Rating of "5" – 1 respondent

6. Does your Department/Organization have a formal Guideline/Policy/Procedure related to the pursuit and completion of Distance Learning based Higher Education for your members?

☐ Yes- 2 respondents ☐ No – 13 respondents

If you selected "Yes", is a copy of your Policies/Procedures/Guidelines available for sharing with this author or others who may access the information contained in this ARP? If so, please list pertinent contact information to facilitate this sharing:

Contact Name: Donna Hilton; Ben Barksdale

Contact Email: dhilton@ci.sierra-vista.az.us; bbarks@arlingtonva.us

Other Contact Info:

7. Please feel free to provide any general comments or suggestions related to your experience with Distance Learning based Higher Education.

I would recommend this program as a suitable alternative to an on-campus experience; I plan on trying to receive a Masters degree in this fashion; Between the two colleges, there was some variety in the degree of academic rigor of the two accredited programs, This is the only way that, given the current state of my professional and personal obligation that I am currently able to attend graduate school; Good option for FF's to use station down time; Overall it was a good experience; The hardest thing about this is getting started, at first this was very intimidating but once I started it was easy; Worked well for me; I thought it was a great experience and a real opportunity for an on-duty firefighter to get an advanced degree; I did not like the experience, I ended up having to drop the class because I didn't keep with the work, because I did not have to go to class, I kept putting off the work and I was not able to catch up; Great – it was correspondence when I went not web based, also it allowed you to take early non-core classes at a local community college but get your BS in fire related.

Thank you for your assistance in completing this survey and if interested, please feel free to contact the author at wschultz@wheaton.il.us to obtain the results of this survey.

Appendix C

Distance Learning based Higher Education Guideline

Purpose

The following information consists of a guideline for personnel to utilize when pursuing distance learning based higher education programs.

Scope

The details of this guideline will apply to all sworn personnel of the Wheaton Fire Department and should be followed when pursuing distance based learning.

Definition

Distance Learning: Distance learning is the delivery of educational programs to students who are off-site.

Accreditation: It is a validation – a statement by a group of persons who are, theoretically, impartial experts in higher education, that a given school has been thoroughly investigated and found worthy of approval.

Synchronous: All participants must be present (in the classroom or online environment) at the same time.

Asynchronous: Students can access and participate in the course at any time of the day.

Guideline

General-

The pursuit of higher education is an integral component of a person's professional development. In this day and age, it is very difficult for a working adult to complete higher education due to time restrictions and availability of resources. Distance based learning provides a viable opportunity for accomplishing higher educational goals and is a method that is especially conducive to the scheduling and work habits of fire suppression personnel. Ideally, learning and school work can be completed while either on-duty or during off duty times scheduled and controlled by the student.

All of the sample programs listed within this Guideline meet the criteria for distance learning and typically require the use of on-line, computer access and/or independent study activities. The sample programs listed are not all inclusive so that a potential student can explore other fire/emergency service related opportunities that meet the criteria outlined within this Guideline. It is important to recognize that while it is a

convenient means of completing higher education, a successful student will need to be self motivated, utilize sound time management skills, and possess diligent reading/study habits. The completion of program requirements and attainment of diplomas rest solely on the student due to the independent nature of this learning method.

Tuition-

The rates of tuition are for the sampled programs listed within the Distance Learning Programs Information table.

The tuition and other costs related to this method of learning may be eligible for reimbursement through the City of Wheaton's Tuition Reimbursement Policy. All City of Wheaton reimbursement activities will be governed by the provisions of the Tuition Reimbursement Policy and/or the provisions of the current Labor Agreement.

The student is encouraged to pursue scholarship opportunities from organizations such as the Illinois Fire Chiefs Association (www.illinoisfirechiefs.org) and the International Association of Fire Chiefs Foundations (www.iafcf.org/index.htm). Additionally, most of the higher education institutions offer financial aid/tuition assistance programs that the prospective student may be eligible for.

Program Selection/Enrollment Process-

The following information consists of a suggested process for selecting a program and pursuing the enrollment process:

1. Research available programs to select the most appropriate program for the student based upon personal needs and program features. A starting point for information may be the programs listed in the Distance Learning Programs Information Table (listed below).
2. Meet with the Deputy Fire Chief to review the selected program and identify tuition options along with establishing a plan for successful completion of the program.
3. Contact an academic/enrollment advisor at the selected program to identify enrollment requirements, admissions paperwork, and transfer of any existing credits (if applicable).
4. Complete the enrollment process and order/purchase learning materials.
5. Upon enrollment, complete the necessary coursework within the timeframes/policies of the program. The Deputy Fire Chief and the student will confer on a regular basis to assess progress and provide any academic assistance (if needed).
6. Complete the procedure for graduation and to receive the applicable diploma. Upon receipt of diploma, provide the Deputy Fire Chief with a copy of transcripts and diploma for placement in the member's training file.

Distance Learning Programs Information Table

**Note: The information contained within the table is a sample of available programs and not intended to be all inclusive.*

Institution	Programs	Tuition – 2008 Rates	Accreditation	General
Eastern Kentucky University www.firescience.eku.edu 1-866-277-9878	1. Master of Science in Safety, Security, & Emergency Management – 36 credit hours 2. Bachelor of Science in Fire and Safety Engineering Technology – 75 credit hours	1. \$500.00 per credit hour 2. \$350.00 per credit hour	Commission on Colleges of the Southern Association of Colleges and Schools	Both programs are delivered completely on-line
Western Illinois University www.wiu.edu/SES/fireservice 309-298-1929	Bachelor of Arts Degree – Fire Administration – 120 semester hours	\$199.50 per semester hour	North Central Association of Colleges and Schools	Regional National Fire Academy Degrees at a Distance Program member. Delivered as either independent study or online courses.

Institution	Programs	Tuition – 2008 Rates	Accreditation	General
Grand Canyon University www.gcu.edu/gcu/ 877-860-3951	1. Master of Science in Executive Fire Service Leadership – 36 credit hours 2. Bachelor of Science in Public Safety Administration – 45 credit hours	1. \$400 per credit hour 2. \$375 per credit hour	North Central Association of Colleges and Schools	Both programs are delivered completely on-line.
University of Cincinnati www.uc.edu/cas/firescience 513-556-1100	1. Bachelor of Science in Fire and Safety Engineering Technology – 94 credit hours 2. Associate Degree in Fire Science Technology – 92 credit hours; Can be applied towards Bachelors Degree	1. \$665 per credit hour 2. \$665 per credit hour	North Central Association of Colleges and Schools	Regional National Fire Academy Degrees at a Distance Program member. Delivered as either independent study or online courses. EMS degree also available

Institution	Programs	Tuition – 2008 Rates	Accreditation	General
Upper Iowa University www.uiuonline.info 888-877-3742	1. Bachelor of Science Degree in Public Administration with emphasis in Fire Science – 36 core credit hours 2. Master of Public Administration with emphasis in either Homeland Security or Public Personnel Management – 42 credit hours	1. \$299 per credit hour for online 2. \$369 per credit hour for online	North Central Association of Colleges and Schools	Both programs are delivered completely on-line.
Columbia Southern University www.columbiasouthern.edu 800-977-8449 code 840	1. Associate of Applied Science in Fire Science – 61 credit hours 2. Bachelor of Science Degree in Fire Science – 121 total credit hours	Tuition for undergraduate is \$185 per credit hour	Distance Education and Training Council and Council for Higher Education Accreditation	Both programs are delivered completely on-line.

General Requirements-

The following General Requirements will apply to activities related to this Guideline:

1. In order to be eligible for consideration under this Guideline, the selected program must be accredited by an agency recognized by the United States Department of Education.
2. Members completing coursework as part of an approved program may utilize City of Wheaton computer systems as part of their activities. It is strongly suggested that personal, virus free, storage mediums be employed as a back-up storage for items.

3. Members may work on school related activities while on-duty during time frames approved by their immediate supervisor. The activities shall not interfere with or delay response to emergency calls. The asynchronous learning type would be most appropriate for on-duty time frames versus synchronous learning due to the possibility for interruptions.
4. Resources purchased through the City of Wheaton will become the property of the City of Wheaton and shall be turned over to the Deputy Fire Chief upon completion of the program for use by other members participating in programs.